



Data Governance: What, Why, Who and How

Examples from
New Mexico and Arkansas

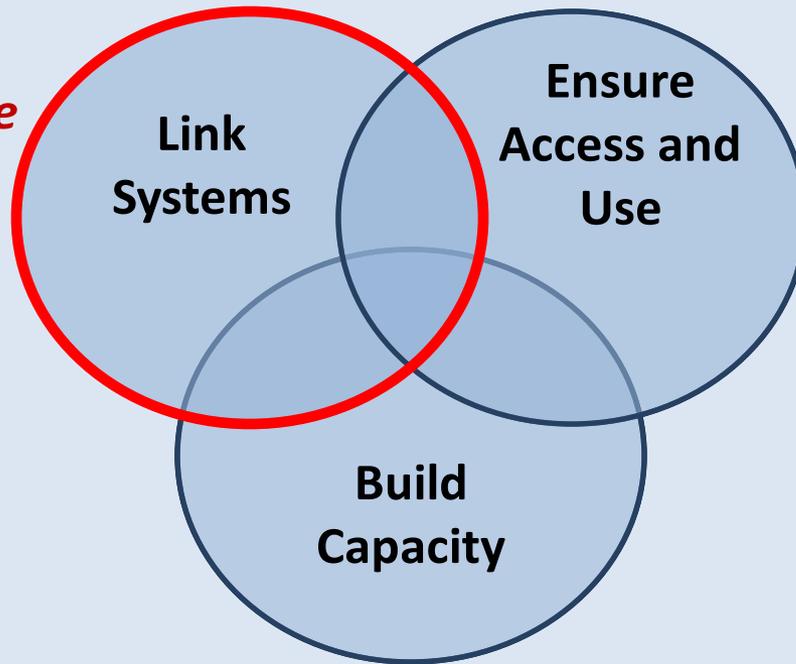
DATAQUALITY
CAMPAIGN

Using Data To Improve Student Achievement

DQC 10 State Actions to Ensure Effective Data Use

Changing the Culture Around Data Use and Maximizing States' Investments in Longitudinal Data Systems for Continuous Improvement

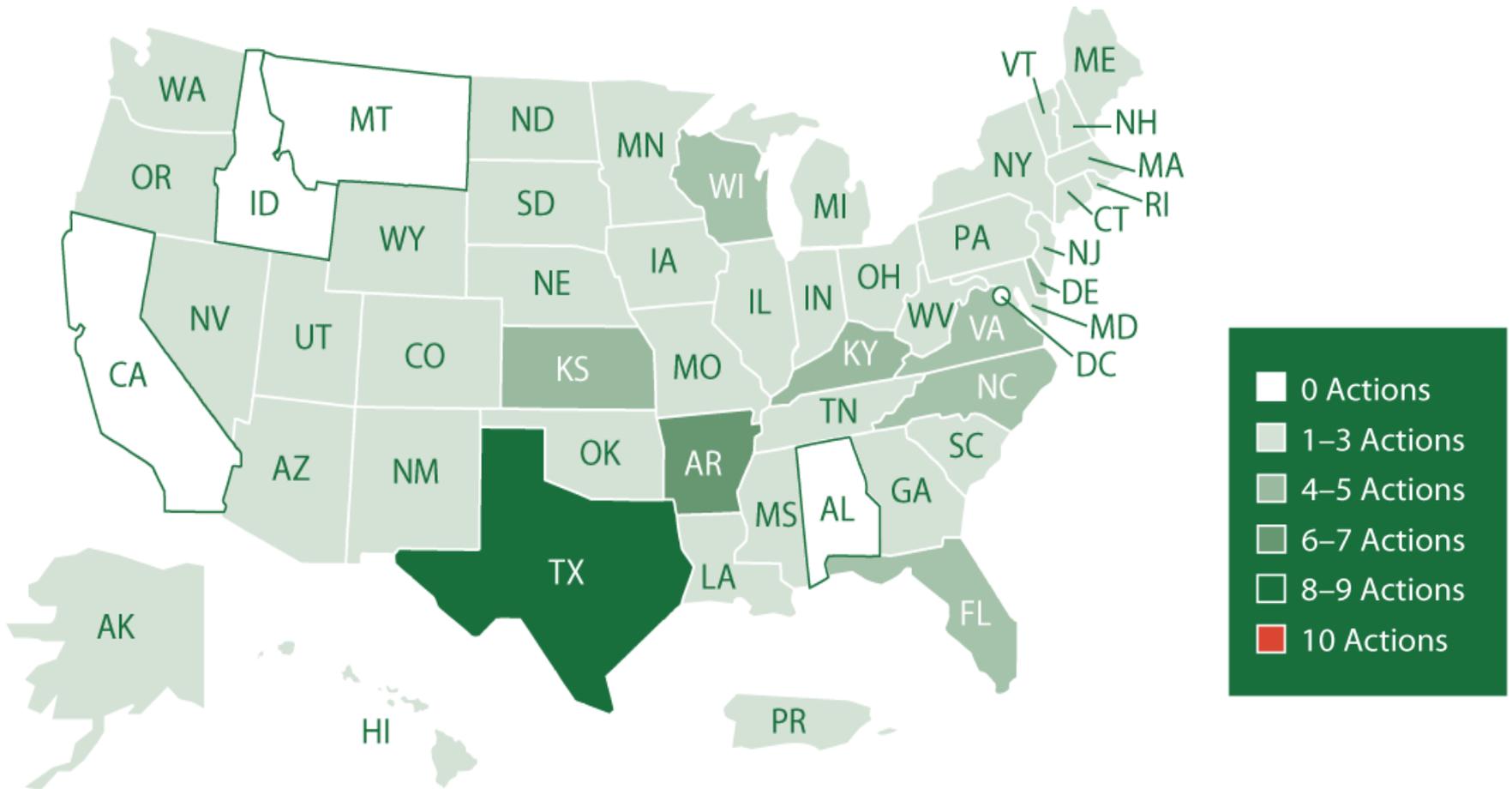
CHANGING and *enriching the type* of information stakeholders can get...



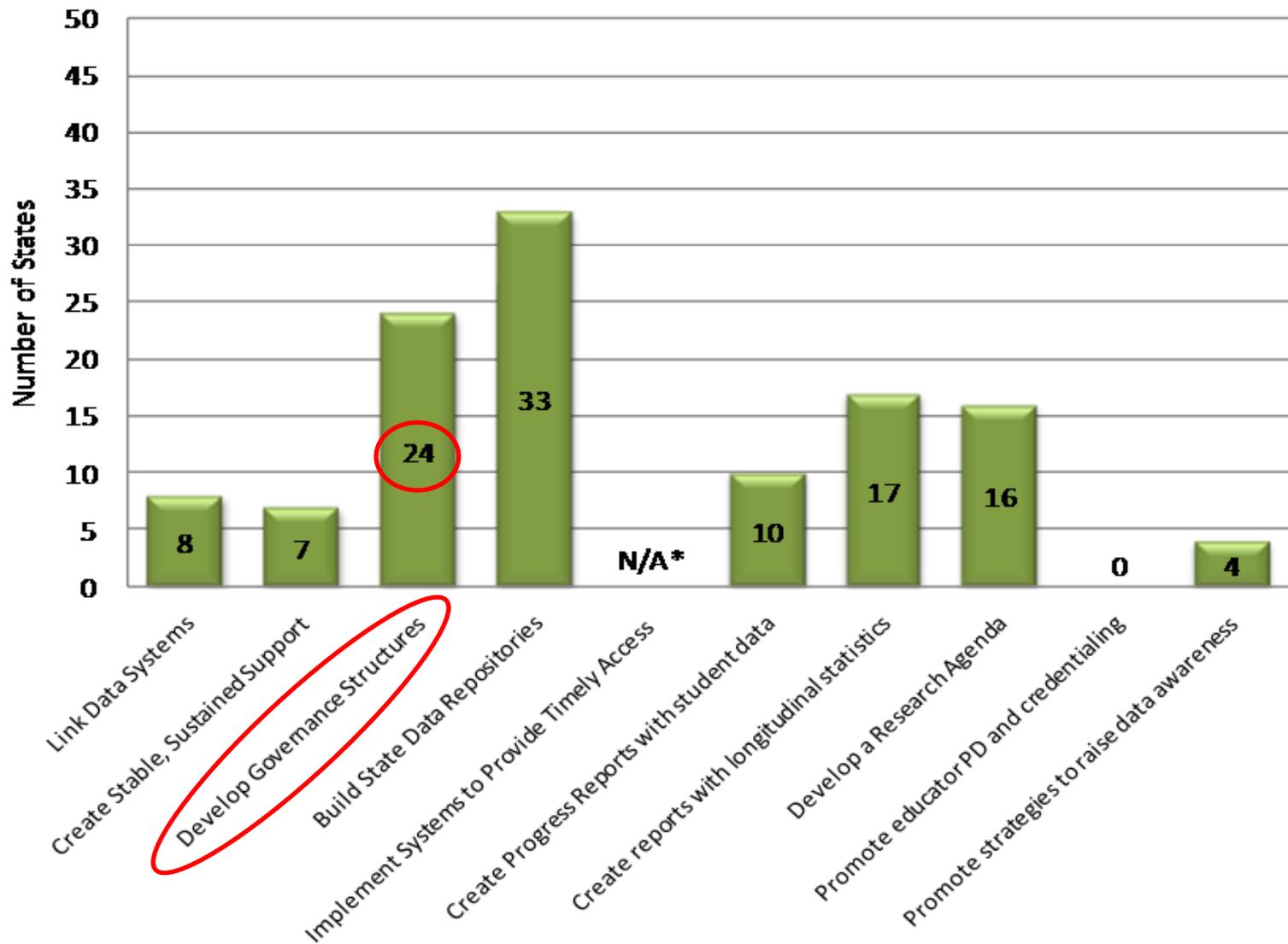
CHANGING the *way* stakeholders get information...

CHANGING the *ability* for stakeholders to use data

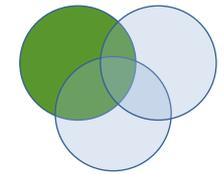
State of the Nation: 10 Actions



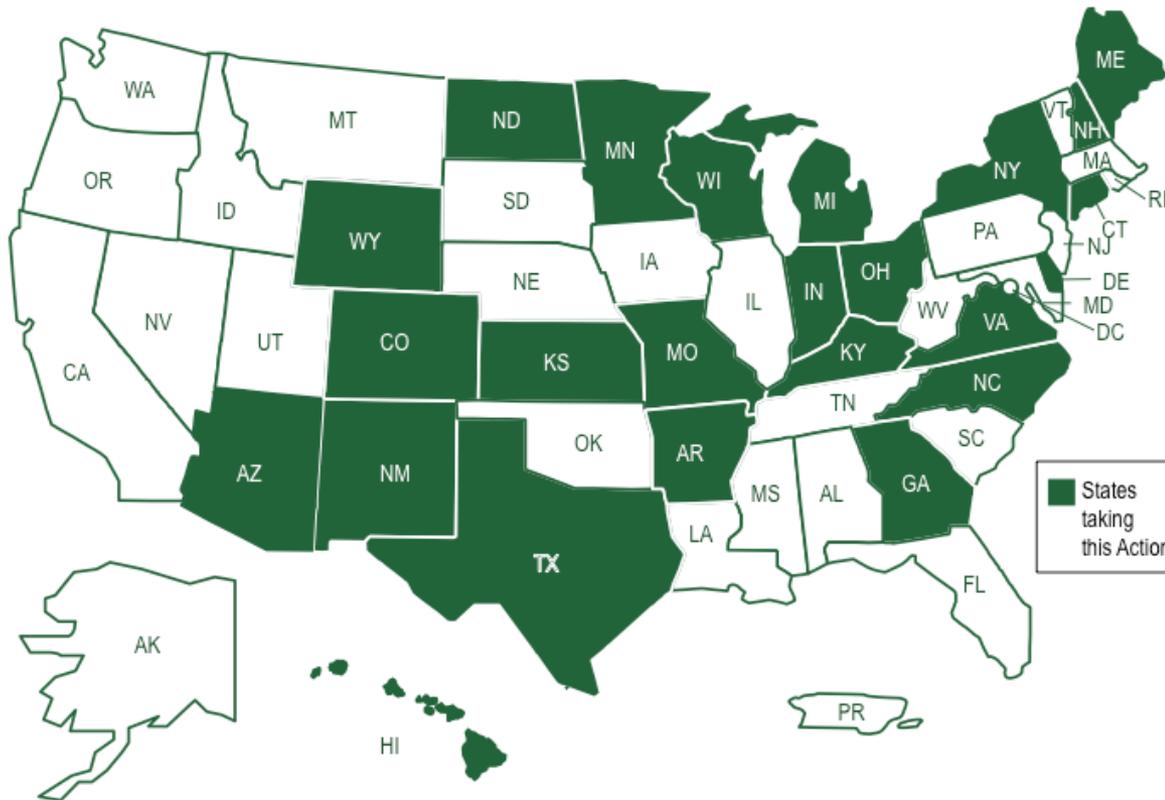
State Progress: By Actions



Expand the ability of state data systems to link across P-20/Workforce pipeline



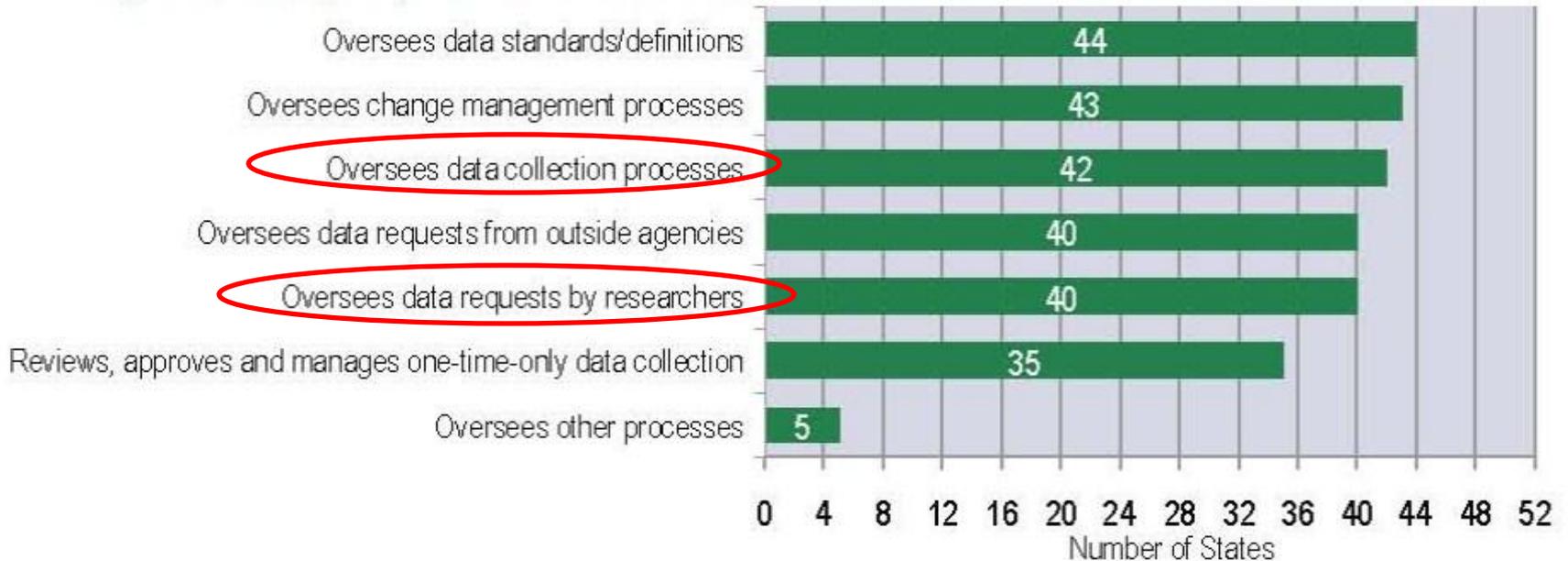
Action 3 Develop governance structures to guide data collection, sharing and use.



24 states are taking this Action

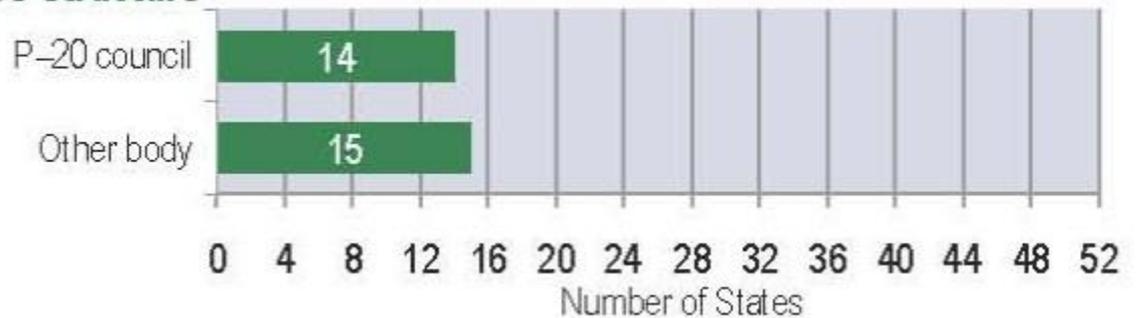
Intra-Agency Governance

Type of Intra-Agency Governance Activities



Inter-Agency Governance

Type of Interagency Governance Structure



FOR MORE INFORMATION

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DATA GOVERNANCE AND P-20 SYSTEMS

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Education Accountability

Peter Winograd, Office of Governor Bill Richardson

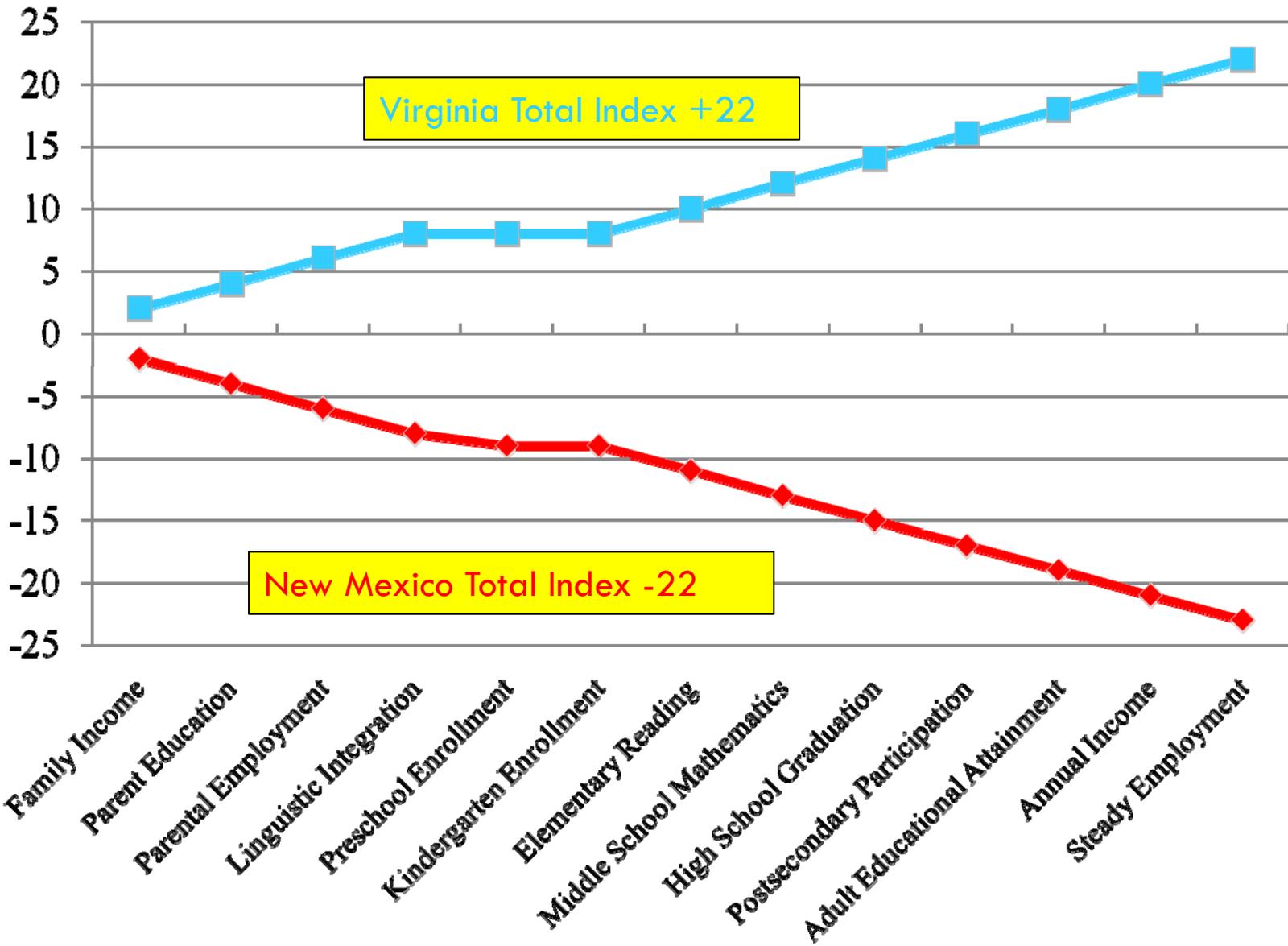
Presented March 3, 2010

to the

NCES Winter Forum and 23rd Annual Management
Information Systems (MIS) Conference "DESERTech"

Quality Counts: 2007 Chance For Success

2



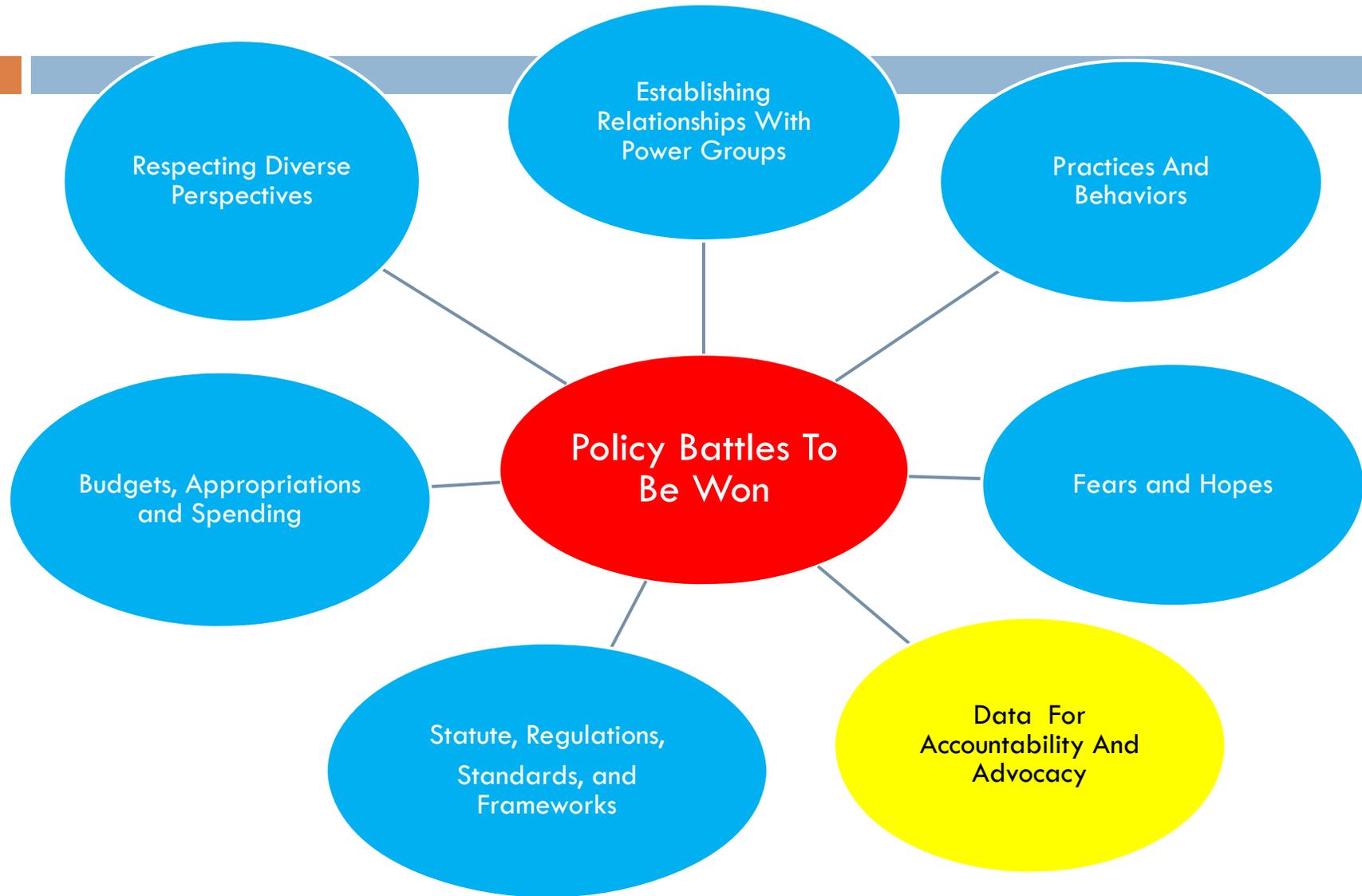
New Mexico's Challenge

3

- How Can New Mexico Address The P-20 Educational Issues It Faces?
- One Important Key Is To Use Data Effectively To Inform Policy
- The Data Quality Campaign has defined 10 Actions to Ensure Data Use:
 - Link state K-12 data systems with early learning, post-secondary education, workforce, social services and other critical agencies.
 - Create stable, sustained support for robust state longitudinal data systems.
 - Develop governance structures to guide data collection, sharing and use.
 - Build state data repositories (warehouses) that integrate student, staff, financial and facility data.
 - Implement systems to provide all stakeholders with timely access to the information they need while protecting privacy.
 - Create progress reports with individual student data that provide information educators, parents and students can use to improve student performance.
 - Create reports that include longitudinal statistics on school systems and groups of students to guide school-, district- and state-level improvement efforts.
 - Develop a purposeful research agenda and collaborate with universities, researchers and intermediary groups to explore the data for useful information.
 - Implement policies and promote practices, including professional development and credentialing, to ensure educators know how to access, analyze and use data appropriately.
 - Promote strategies to raise awareness of available data and ensure that all key stakeholders, including state policymakers, know how to access, analyze and use the information.

Thinking About Data And Policy

4



The Notion Of Killer Questions

- The term “Killer Questions” was developed by several states working with The Wallace Foundation in an effort to improve the data-informed decision-making process of principals and other school leaders.
- Killer questions refer to the key policy and political questions that come up over and over when leaders look at data (e.g. student achievement, graduation, dropout, health and safety indicators, financial resources, workforce needs) and say, “How do I use these data to make a difference?”
- Answering killer questions requires judgment, the ability to deal with ambiguity and the authority to allocate time, people and money.
- Identifying and addressing the killer questions is important whether one is at the school house or the state house.
- The better one’s data system, the more one is confronted with the killer questions.

The Killer Questions: The Policy Perspective

6

Here are some of the most common killer questions that policymakers ask when they look at education data for New Mexico:

- How do we help more young children get ready for school?
- How do we increase the level of student performance for all students and close the achievement gap among students?
- How do we ensure that students graduate from high school ready for college and the workforce?
- How do we ensure that more students enter college and successfully complete programs and degrees?
- How do we strengthen the relationship between education and the cultural wealth of New Mexico?
- How do we strengthen the relationship between education and the economy?
- What will these educational initiatives cost?
- How will we know if these efforts are successful?
- Where will the funding come from?
- Who has the power and influence to make change happen?

Data Questions, Policy Questions and Political Questions

7

Data Questions	Policy Questions	Political Questions
Data for Advocacy and Accountability	Statute, Regulation, Standards, Framework and Budget	Diverse Perspectives, Power Groups, Practices and Behaviors
<p>What percentage of students score at proficient or above on achievement tests in math or reading?</p> <p>What are the achievement gaps among different groups of students?</p> <p>Which schools have failed to improve student achievement over time?</p>	<p>Should certification requirements for teachers be strengthened?</p> <p>What kinds of instructional interventions should be implemented?</p> <p>How do we help schools that have consistently struggled to improve student achievement?</p> <p>How will these reforms be funded? Where will the money come from?</p>	<p>Who has the influence to change how teachers are prepared?</p> <p>What groups control professional development?</p> <p>Who determines what instructional interventions are most effective?</p> <p>Who decides where the most effective teachers and principals are placed?</p> <p>Who evaluates teachers?</p> <p>Who can change how resources can be allocated?</p>

Answering These Questions Requires Interagency Cooperation

8

- Initial work, 2005-2008 between the New Mexico Public Education and Higher Education Departments had both successes and challenges:
- Successes
 - ▣ *Ready for College*
 - ▣ High school redesign
 - Implementation of dual credit
 - Redesign of high school exit exam
 - Restructuring of high school graduation requirements
- Challenges
 - ▣ Technical challenges
 - ▣ Legitimate fears on both sides

New Mexico's Approach

9

- 2008 Data Warehouse Bill HB 39 – did not pass
- 2009 Data Warehouse Bill SB 581– did not pass
- 2009 Governor's Executive Order 2009-019 (June, 2009)
 - ▣ Created the New Mexico Data Warehouse Council
 - ▣ Seeks to address the 10 DQC Actions.
 - ▣ The Council, co-chaired by the Public and Higher Education Departments, is comprised of representatives from New Mexico's
 - Children, Youth and Families Department;
 - Workforce Solutions Department;
 - Economic Development Department;
 - Information Technology Department;
 - Human Services Department;
 - Health Department;
 - The Office of Education Accountability;
 - The Office of The Governor;
 - 3 Post-Secondary Institutions; and
 - 3 School District Superintendents.

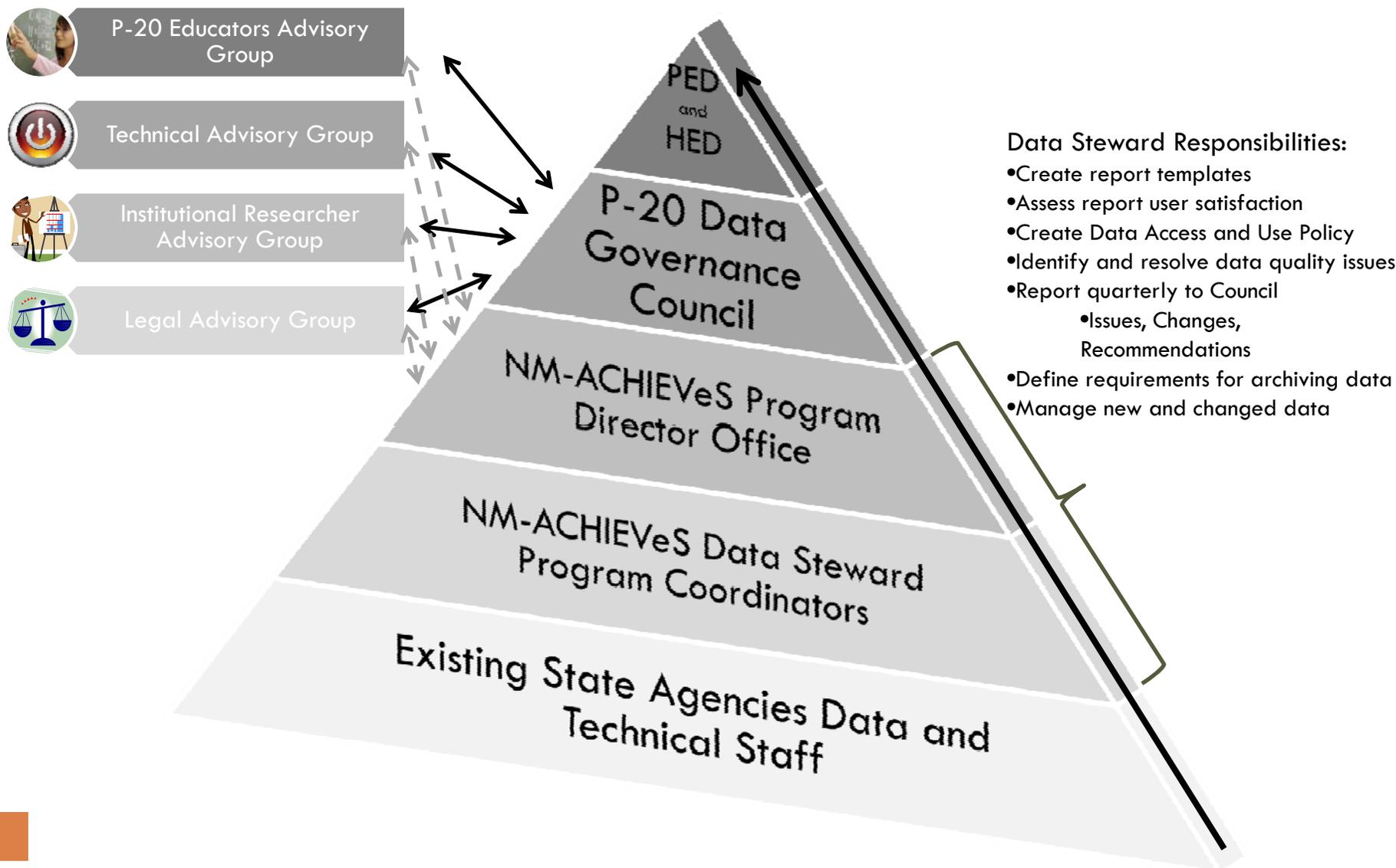
New Mexico's Approach

10

- Executive Order, Continued.
 - The Council created and signed an Inter-agency Memorandum of Understanding outlining data sharing protocols and the use of data across agencies for research purposes. (November, 2009)
 - The Council, under the guidance of Public and Higher Education Departments developed and submitted a P-20 data systems grant under the State Longitudinal Data Systems grant program. (November, 2009)
 - Allows New Mexico to meet the assurance of having a longitudinal P-20 data system outlined in the American Recovery and Reinvestment Act, and became part of New Mexico's application for Race to the Top (January, 2010).
- 2010 Data Warehouse Bill HB 70 – did pass
 - Added additional higher education and public education representation
 - Added representation from Legislative agencies– the Legislative Education Study Committee and the Legislative Finance Committee.

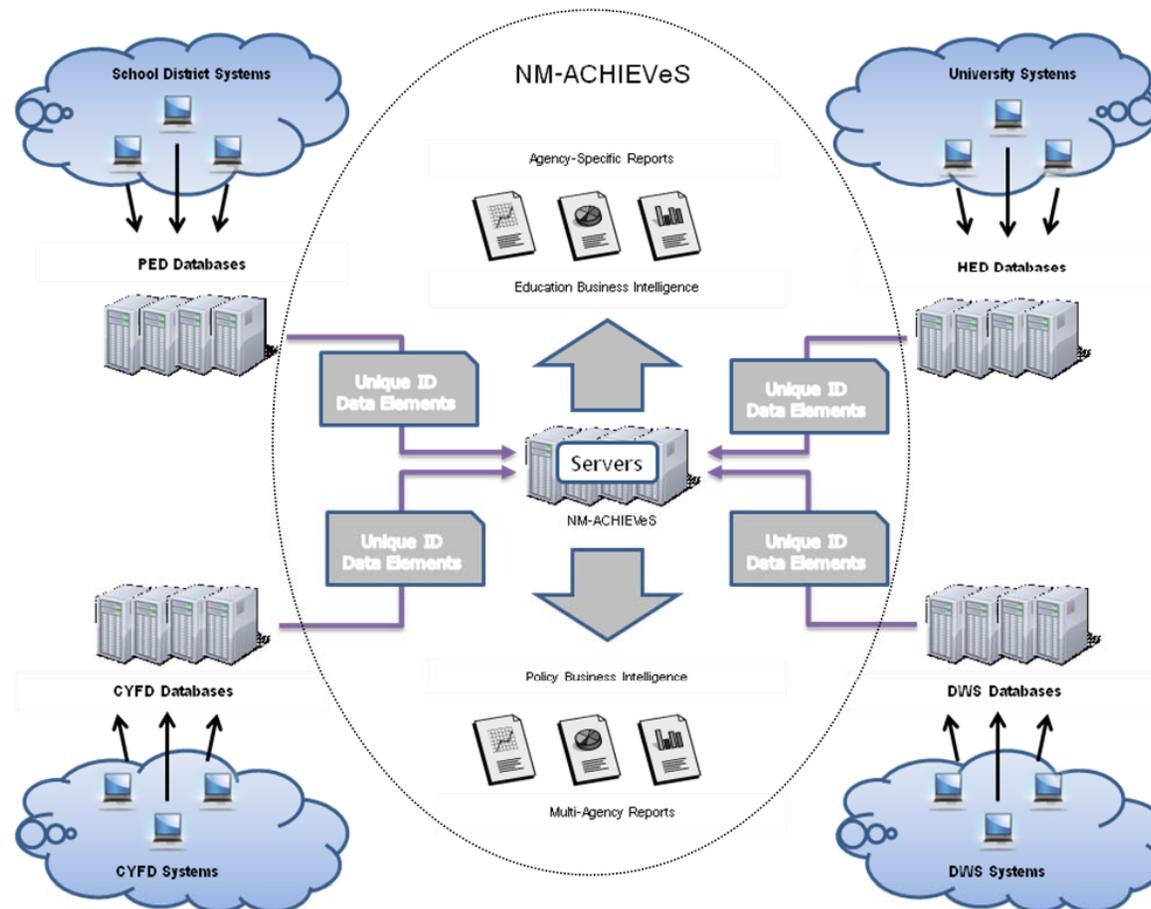
Data Governance Structure

Achieving Collaborative Heights In Education Via e-Systems (NM-ACHIEVeS)



NM-ACHIEVeS: New Mexico Achieving Collaborative Heights in Education Via e-Systems

12



Next Steps

13

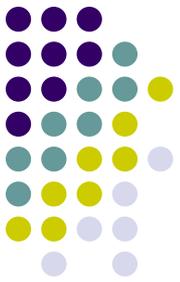
- If signed, HB 70 will become law in *May* of 2010.
- Funding through the State Longitudinal Data Systems grant and Race to the Top.
- The Data Warehouse Council will determine the initial reports produced by the P-20 data system.
- The Council will begin to implement training protocols for data use.

Contact

14

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- Peter Winograd: peter.winograd@state.nm.us
- Phone: 505-476-1070
- Office of Education Accountability website: <http://education.nmdfa.state.nm.us/>

Arkansas Department of Education: Data Governance



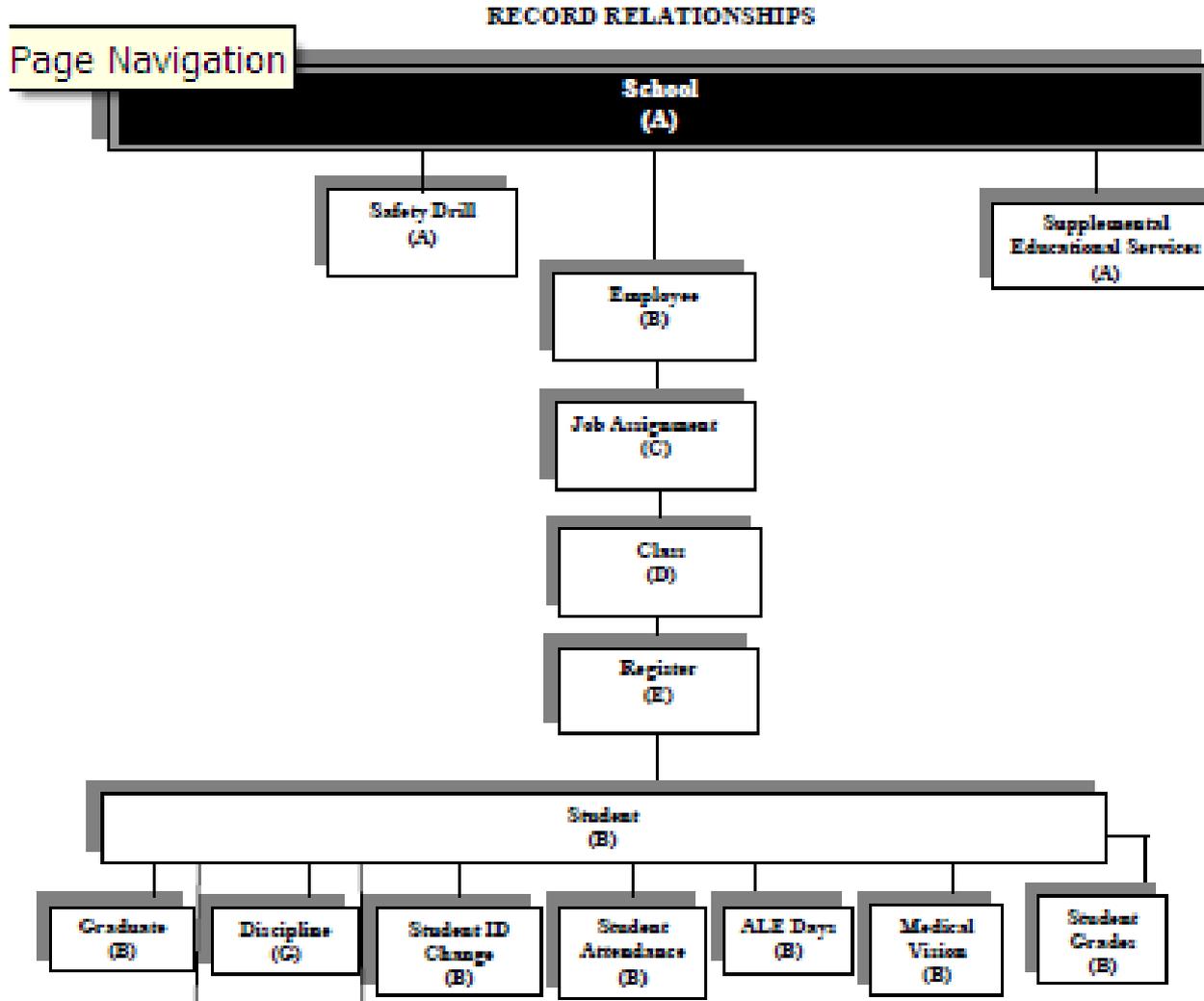
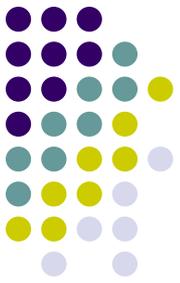
ARKANSAS DEPARTMENT OF EDUCATION

STATEWIDE INFORMATION SYSTEM (SIS)
2009/2010

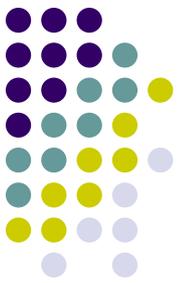
T. Kenneth James, Commissioner

James Boardman, Assistant Commissioner
Research & Technology

Statewide Information System: Schema



Statewide Information System: Cycle Requirements

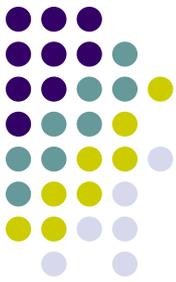


CYCLE 2 SUBMISSION – October 15th

DATA TABLES AND DATA ELEMENTS

SAFETY DRILL	SCHOOL	SPECIAL EDUCATION EMPLOYEES	STUDENT	STUDENT ID
Fiscal Year Cycle LEA Safety Code	Fiscal Year Cycle LEA	Fiscal Year Cycle LEA	Fiscal Year Cycle LEA SSN	Fiscal Year Cycle LEA SSN Student
SafetyDate SafetyHour SafetyMin SafetyAMPM Safety Eva. Min Safety Eva. Sec	Sch Web Addr Mail Address Mail City Mail State Mail Zip MailZip4 Ship Address Ship City Ship State Ship Zip Ship Zip4 Phone AC Phone Prefix Phone Suffix Phone Ext. Fax AC Fax Prefix Fax Suffix Fax Ext. NoCentlAccred	Staff, SSN TeacherID TitleCode GradeLevels BldgCode EmpFName EmpMName EmpLName Cert. StatusTeacher Service Provider ClassrmAide Provider FTE PrimDisab IntegratedClassrm PerPeriodRange TotHrs ECHConsulHrs ECHIInstrucHrs Folder WM Count Folder WF Count	Uniq Stu ID Fname Mname Lname Race Gender Birth Date Resident LEA Resident Code Grade Level PreSchKinderg Entry Code Entry Date SmartCoreWavier Consolidated LEA SchChoice (Gen) SchImprv In Dist SchImprv Out Dist SchChoice 1st Time	Date ChangeFromID ChangeToID

Statewide Information System: Cycle Requirements



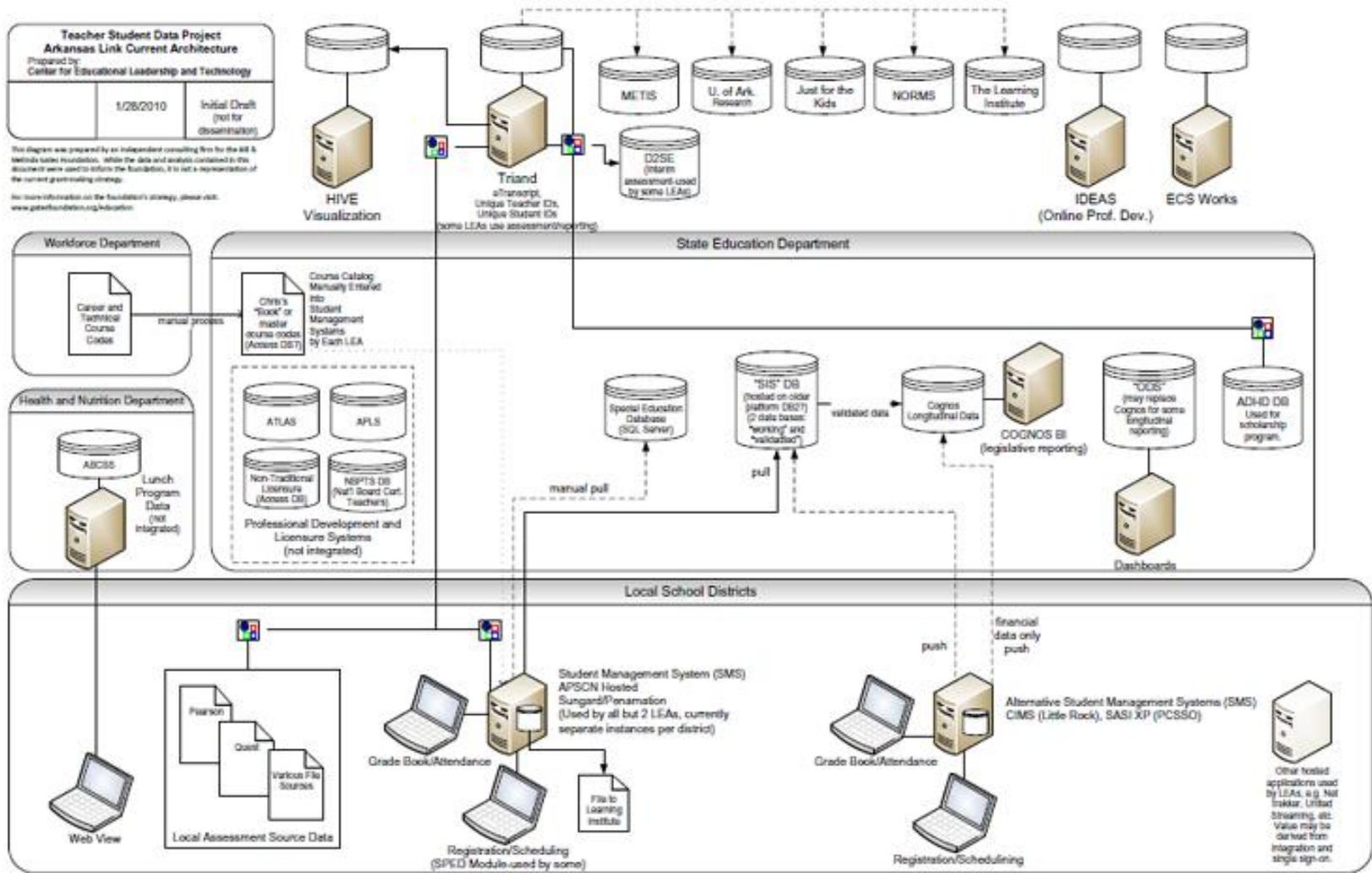
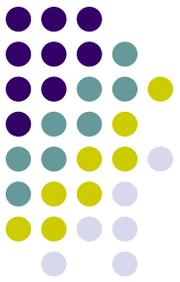
ID	Element	Name	Type	Size	Values	Cycles
	Key					
ST0010	Fiscal Year – <i>The fiscal year that this reporting represents. For the 2009/2010 reporting year fy must be = 20</i>	fy	Num	2	Table	2,3,4,5,6,7
ST0020	Cycle – <i>The reporting cycle for which the data is submitted: 2 = October 15th 3 = November 15th 4 = December 15th 5 = February 15th 6 = April 15th 7 = June 15th</i>	cycle	Num	2	Table	2,3,4,5,6,7
ST0030	LEA, School – <i>Local Education Agency, the unique seven-digit number assigned by the ADE to identify individual county, district, schools, cooperatives, and vocational institutions. The first two digits represent the county, the second two digits represent the district, and the last three digits represent the individual school, for example: 6001002 60 = Pulaski County 01 = Little Rock School District 002 = Hall High School</i>	lea	Alpha	7	Appendix C	2,3,4,5,6,7
ST0040	SSN, Student – <i>The nine-digit Social Security number of the student. If a student's SSN cannot be obtained, then the ADE assigned number as required by Arkansas Code Ann. 6-18-208 should be used. This number should remain the same throughout the student's school career.</i>	ssn	Alpha	9	##### #	2,3,4,5,6,7
	General					
ST0045	State Reporting ID – <i>The unique 10-digit Triand identifier generated for the student by the state.</i>	uniq_stu_id	Alpha	10	##### ##	2,3,4,5,6,7
	Student Name					
ST0046	First Name – <i>The student's first name.</i>	fname	Alpha	20		2,3,4,5,6,7
ST0047	Middle Name – <i>The student's middle name.</i>	mname	Alpha	15		2,3,4,5,6,7
ST0048	Last Name – <i>The student's last name.</i>	lname	Alpha	25		2,3,4,5,6,7
ST0050	Race – <i>The general racial or ethnic heritage with which the individual most identifies from the following codes: YNNNNN = Hispanic NYNNNN = Native American/Alaskan Native NNYNNN = Asian NNNYNN = Black NNNNYN = Native Hawaiian/Pacific Islander NNNNNY = White Y in more than one combination will be considered 2 or more races</i>	race_ethnic	Alpha	6	NNNNNN	2,3,4,5,6,7

Uniform Course Codes

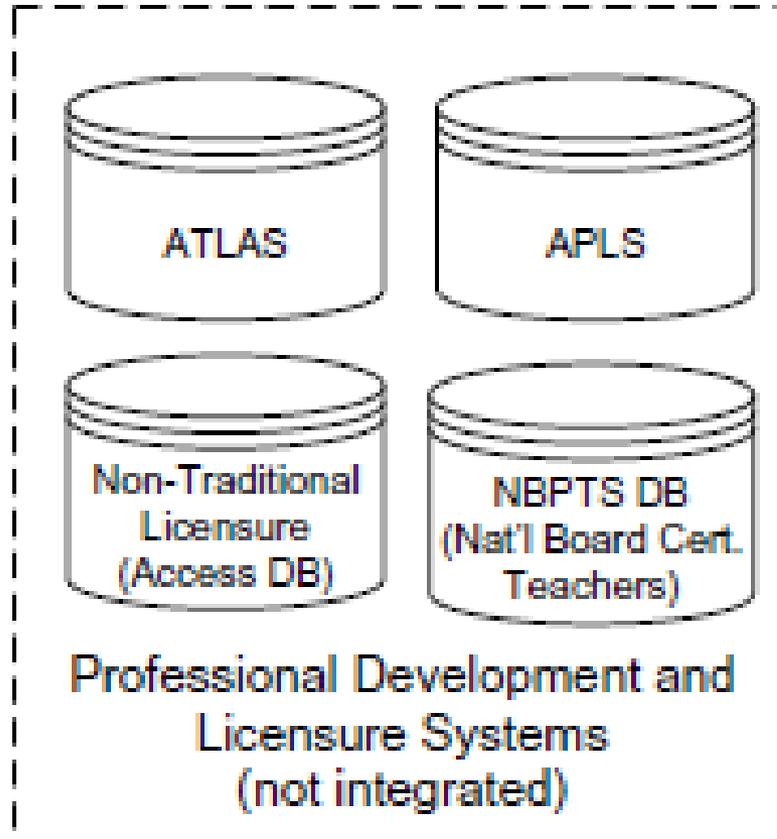
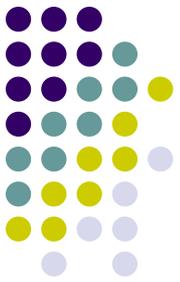


Level 4 (ADE/DWE APPROVED)			
Number	HQT*	Course Title	Subject Areas
531020	Y	ADE Approved Geometry	31 Geometry
531030	Y	IB Geometry	31 Geometry
531040	Y	Investigating Geometry	31 Geometry
531070	Y	Core-Plus (2)	31 Geometry
531080	Y	SIMMS (2)	31 Geometry
531090	Y	ARISE (2)	31 Geometry
531100	Y	First Part Geometry 1	31 Geometry
531200	Y	Second Part Geometry 1	31 Geometry
532010	Y	ADE Approved Algebra II Honors	32 Algebra II
532020	Y	ADE Approved Algebra II	32 Algebra II
532030	Y	IB Algebra II	32 Algebra II
532040	Y	Core-Plus (3)	32 Algebra II
532050	Y	SIMMS (3)	32 Algebra II
532060	Y	ARISE (3)	32 Algebra II
533010	Y	ADE Approved Pre Calculus including Trig Honors	33 Pre Calculus/Trig
533020	Y	ADE Approved Pre Calculus including Trig	33 Pre Calculus/Trig
533070	Y	Pacesetter Math Pre Calculus	33 Pre Calculus/Trig
533130	Y	Core-Plus (4)	33 Pre Calculus/Trig
533140	Y	SIMMS (4)	33 Pre Calculus/Trig
533150	Y	ARISE (4)	33 Pre Calculus/Trig
533160	Y	IB Pre Calculus/Trig	33 Pre Calculus/Trig
534020	Y	ADE Approved Calculus Honors	34 ADE Approved Calculus
534040	Y	AP Calculus AB	34 ADE Approved Calculus
534050	Y	AP Calculus BC	34 ADE Approved Calculus
534060	Y	IB Calculus	34 ADE Approved Calculus
539030	Y	AP Statistics	39 ADE Approved Mathematics
539040	Y	IB Trigonometry	39 ADE Approved Mathematics
539050	Y	ADE Approved Discrete Mathematics Honors	39 ADE Approved Mathematics
539060	Y	IB Mathematical Studies	39 ADE Approved Mathematics
539070	Y	IB Mathematics SL	39 ADE Approved Mathematics
539100	Y	ESL Mathematics	39 ADE Approved Mathematics
539700	Y	Ramp-Up to Algebra	39 ADE Approved Mathematics
539900		Other Concurrent Credit Mathematics	39 ADE Approved Mathematics

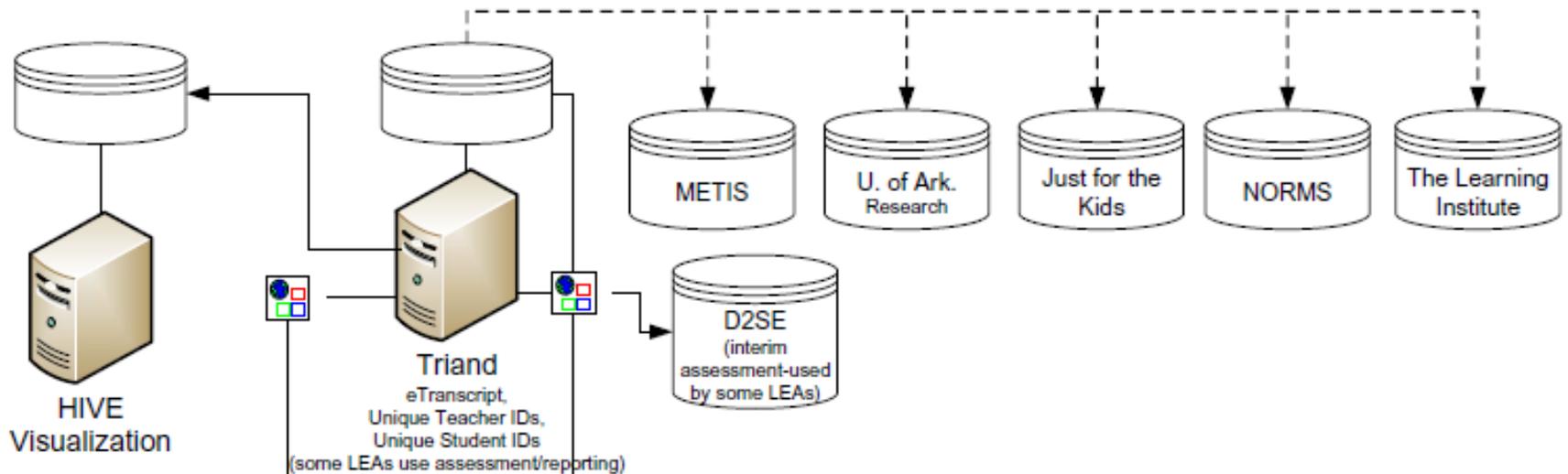
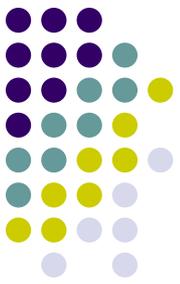
The "Architecture"



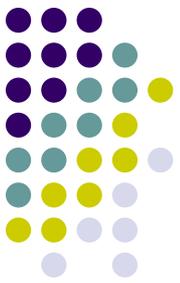
A Fundamental Problem



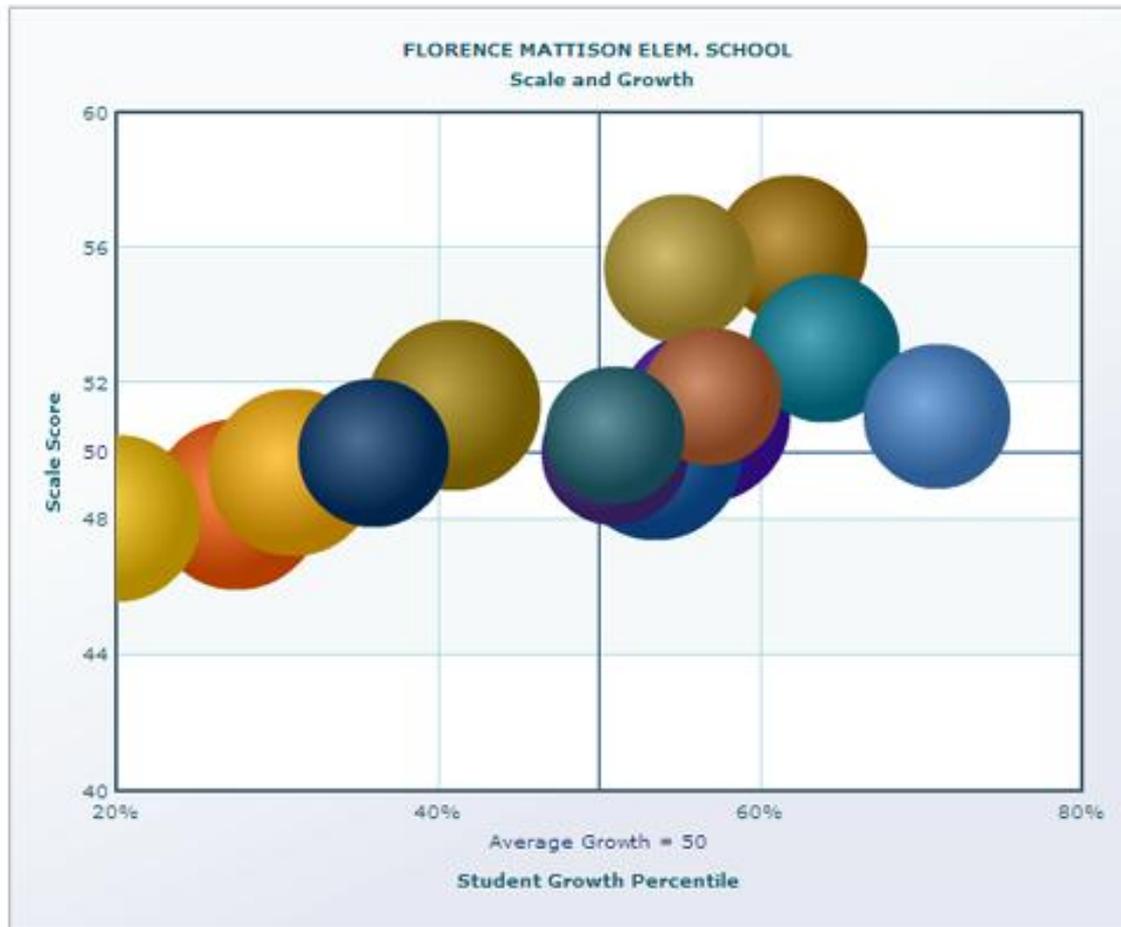
An Inconvenient Inconsistency



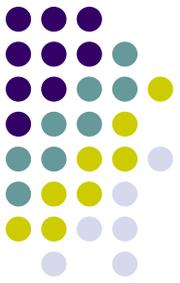
The Need for Governance



FLORENCE MATTISON ELEM. SCHOOL - Scale Scores and Student Growth 2009



The Need for Governance



CONWAY SCHOOL DISTRICT
ELLEN SMITH ELEMENTARY SCHOOL - Scale Scores and Student Growth 2009

